

SCDNR Marine Turtle Conservation Program

LOGGERHEADLINES

AU REVOIR

The South Carolina Marine Turtle Conservation Program marks its official 26th year in 2006 with Sally Murphy's retirement on June 30th after 33 years of service. Sally will be greatly missed but her pioneer work and dedication will continue to aid sea turtle conservation worldwide. There are many ways to express it, but we will not be saying good bye to Sally. June 30 was her last day in the office, and she has retired to The Dacha in Sheldon for a well-earned respite from her responsibilities at the DNR. However, she will always be present in spirit when the sea turtles and volunteers are on the beaches of South Carolina! Please visit our web site for more on Sally ~ www.dnr.sc.gov/seaturtle/.



Nesting through June 30

Myrtle Beach S.P.	0
Huntington Beach S.P.	7
S.C.U.T.E.	39
South Island	66
Cape Island	564
Lighthouse Island	122
Dewees Island	14
Sullivans/Isle of Palms	9
Folly Beach	28
Kiawah Island	115
Seabrook Island	27
Botany Bay Isl & Plan	126
Edingsville Beach	44
Edisto Beach S.P.	39
Edisto Beach	24
Harbor Island	13
Hunting Island	38
Fripp Island	19
Pritchards Island	44
Hilton Head Island	114
Daufuskie	25
TOTAL	1,452

NESTING, STRANDING AND NECROPSY SUMMARY

South Carolina's sea turtle nesting season is off to a good start. Nest numbers are up for most beaches! The table to the left, shows nesting numbers through June 2006. Strandings this year ($n = 51$) are slightly lower than 2005 ($n = 64$) and much lower than previous years. There were no strandings reported during January through March. From April through June, 39 loggerheads, one green and 11 Kemp's ridleys have stranded. Post-mortems were performed on eight sea turtles from January through June: seven loggerheads and one Kemp's ridley. Four of the loggerheads appeared to have died from a boat strike.



BEACH VITEX UPDATE

We have a new and simple web address for you to check the updates for Task Force activities. Please report any possible locations by going to the website (click on 'Information for Volunteers') and submit a report form online. It is important that the plant not be removed until it has positively been identified. Please visit: <http://www.beachvitex.org/> for more information.

SC AQUARIUM SEA TURTLE REHAB PROGRAM

Kelly Thorvalson: The Aquarium's Turtle Hospital overwintered a stranding from St. Simon's Island, Georgia. "St. Simon," had the typical signs of Debilitated Turtle Syndrome (DTS) when it arrived in August 2005: anemia, emaciation, dehydration, hypoglycemia and heavy parasite loads. As the turtle's health and feeding habits improved, volunteers and staff noticed that there was no vision in the left eye. Multiple tests show a tumor behind the eye - most likely the cause of the debilitated state in which the turtle stranded. A biopsy is being scheduled to learn more about this tumor.

"Lighthouse", a 34-kg loggerhead from Lighthouse Island, stranded on June 11, 2006 with classic DTS symptoms. The turtle is on antibiotics, iron injections, dewormers and vitamins as well as getting two feedings of assorted fish every day. "Lighthouse" is stable and staff is hopeful for a full recovery within the year.

"Folly," a 300-pound adult female loggerhead rescued from the surf on Folly Beach, was a victim of a boat strike causing major fractures to her head and carapace. The injuries were incredibly severe and it is amazing that she lived for three weeks while the Aquarium hospital staff tried to save her life. The necropsy showed that the turtle was holding 694 egg follicles which would have been her 2006 nesting season. A very sad case indeed...

SCA would like to thank the nest protection and stranding project volunteers for their efforts on the beaches and for their part in rescuing sick and injured turtles. This program is not only important in that it saves turtles lives but as a part of a public aquarium, it speaks loudly to visitors about the importance of sea turtle conservation. Please visit: www.scaquarium.org

REGIONAL UPDATE

Kemp's Ridley Nesting Update: As of June 5, approximately 9,000 Kemp's ridley sea turtle nests had been counted in Tamaulipas, Mexico. A record total of 10,099 nests for the entire nesting season was documented in 2005. According to Dr. Donna Shaver (National Park Service, Padre Island National Seashore), as of May 31, 76 Kemp's ridley nests have been found on the Texas coast this year. This is the largest number of nests that have been documented during a nesting season in Texas since record keeping began.

The South Carolina Marine Turtle Conservation Program began in 1977 with beach management research. The program further developed in the early eighties with formation of the nest protection and stranding volunteer networks along the coast of South Carolina. Today, the program encompasses research, management, monitoring and education within the local, regional and international communities. We are indebted to the continued passion, dedication and effort of our volunteers and staff.

Program Staff

DuBose B. Griffin ~ Coordinator

Charlotte P. Hope ~ Wildlife Biologist

Joan S. Seithel ~ Program Support

Thomas M. Murphy ~ Research Support

Marine Turtle Conservation Program
SC Department of Natural Resources
Post Office Box 12559
Charleston, SC 29422

Voice ~ (843) 953 - 9015

Fax ~ (843) 953 - 9353

Email ~ coastbio@dnr.sc.gov

Web Site ~ www.dnr.sc.gov/seaturtle/

Equal Opportunity Agency

This program is funded in part with grants from NOAA Fisheries and the US Fish and Wildlife Service under Section 6 of the Endangered Species Act. Data presented in Loggerheadlines is not to be used in any publication, product, or commercial application without prior written consent of the data owner. If consent is given, the data provider must be cited appropriately after approval of use is obtained.



North Carolina - Matthew Godfrey: The sea turtle nesting season in North Carolina usually peaks in early July. As of 10 July, there have been 356 loggerhead nests and two green turtle nests reported by observers. Annual average number of nests based on the past 10 years is 725 nests; based on this year's trend, it appears that the 2006 season will be about average. This year, four more satellite tags are being attached to post-nesting female loggerhead turtles from Bald Head Island. Daily updates of the turtle locations: www.seaturtle.org/tracking/?project_id=158.

There have been 168 stranded turtles (live and dead) reported to date in North Carolina. The majority have been large juvenile loggerheads found in both sounds/estuaries and on offshore beaches. The NC Sea Turtle Advisory Committee recently submitted its recommendations to the NC Marine Fisheries Commission to reduce sea turtle bycatch in commercial and recreational fisheries in estuarine NC waters. Although limited in scope, the recommended actions, if followed, should help alleviate some of the incidental take of sea turtles in NC waters.

Georgia - Mark Dodd: Based on the June totals, loggerhead nesting in Georgia will probably be higher than previously expected. Log-

gerhead nesting through June was substantially above the 7-year mean (1999-2005) of 639 nests (range 213-974). We expect a total of between 1,400-1,500 nests in Georgia during 2006. In other news, sea turtle stranding totals remain below average. To date, 62 dead turtles have been located by cooperators on Georgia beaches. By comparison, cooperators located 205 and 164 strandings during the same period in 2002 and 2004, respectively. We suspect that increased TED enforcement by Georgia DNR Law Enforcement and reduced trawling effort by shrimpers are responsible for the lower stranding rate in 2006.

Florida - Allen Foley: The number of sea turtle strandings (dead, sick, or injured sea turtles) documented in Florida from January 1 through April 29 2006 is 563. Over the last ten years, the average number of strandings each year through the same period has been 445. Overall, unusually high numbers of sea turtle strandings are persisting along some parts of the east coast and along the central west coast. Unfortunately, strandings have continued in large numbers and I'm sure we're still well above average through July. We have a re-emerging red tide event in southwest Florida with unusually high numbers of strandings to match.

EDUCATION AND RESOURCES

The first annual SWoT (State of the World's Sea Turtles) report is now available. This initiative was created to provide an overview of sea turtles' status from a global perspective. The report is available online at <http://www.seaturtlestatus.org>. A poster that describes how saving sea turtles helps to save the entire ocean and what individuals can do to protect sea turtles is also available at this web site (under the "Resources" drop down menu, select "Outreach Toolkit").

Lights Out for Loggerheads

Visit www.starrynightlights.com for light pollution mitigation strategies.

Free Turtle Shields: Send a self-addressed, stamped business size (#10) envelope to (up to five per envelope): Free Turtle Shields 407 Glenwood Drive, Georgetown, KY 40324.



Aerial photography of leatherback sea turtle off the coast of South Carolina. Photography by Thomas Murphy.

RESEARCH

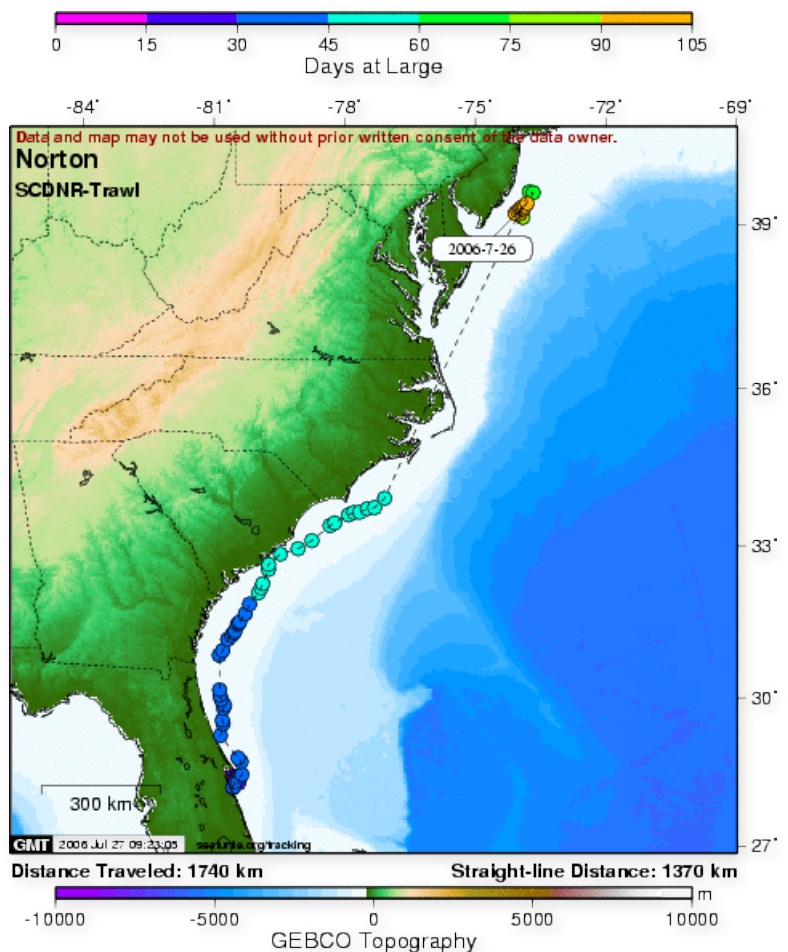
Leatherback Aerial Surveys: Once again we flew parallel lines along the entire coastal zone at 1.5 and 3.0 nautical miles from shore. Leatherback numbers were low again this year. Cannonball jellyfish were also rare or absent.

SCDNR MRD In-Water Study: The SCDNR Marine Resources Division in-water sea turtle study recently completed its seventh season of sampling. Since 2004, the focus of this research program has shifted from a regional abundance survey (summers 2000-2003) to satellite telemetry research documenting loggerhead movements and migrations. In 2006 two different telemetry projects were conducted: the first was a continuation of a project started in 2004 to document the seasonal distributional patterns of juvenile loggerheads in the Charleston Harbor shipping entrance channel and the second was on adult male loggerheads during their mating season.

To date, 24 juvenile loggerheads have been tagged and released with satellite transmitters. Geographic locations and various behavioral data have been recorded for up to 380 days for these turtles. Generally these turtles remain along the inner and middle continental shelf off of SC between mid-April and mid-December, but reside further offshore in waters as cold as mid 50's (F) during the winter and early spring. Distributional maps for all 24 turtles are online: www.seaturtle.org/tracking/index.shtml?project_id=27.

To work with adult male loggerheads, project personnel traveled to Cape Canaveral, FL, in April 2006. Eleven adult male loggerheads were collected in the Cape Canaveral shipping entrance channel. All adult males received ultrasound and laparoscopic exams to determine the stage of their reproductive activity at the time of collection. By comparing these two methods (as well as blood testosterone levels and the degree of plastron 'softening'), researchers at the Grice Marine Biology Laboratory hope to determine if non-invasive procedures can provide comparable estimates of reproductive activity as the invasive laparoscopic procedure. Nine of 11 adult males col-

Leatherback Aerial Surveys		
Date	Leatherbacks	Loggerheads
25-Apr-06	33	50
1-May-06	34	44
9-May-06	10	26
16-May-06	24	66
23-May-06	13	26
30-May-06	4	30



lected were satellite-tagged, of which seven were monitored for more than one week. Of these seven adult males, all remained within 50km of Cape Canaveral until mid- to late-May, at which time four of them traveled north, one as far as NJ, while the other three remained within 50km of Cape Canaveral. This work will be continued in April 2007, with the goal of tagging up to 20 additional adult male loggerheads with satellite transmitters. Distributional maps for the adult male loggerheads tagged are online at: www.seaturtle.org/tracking/index.shtml?project_id=130.

NETWORK NEWS

Notes from the Field

Dafuskie Island: Dafuskie is having a record nesting year. Dafuskie usually logs about 10 nests per season. However, this year they are to 25 possible nests by the end of June and still counting. This is great news except they ran out of nest protection signs. So what did they do ... they made their own!



Hilton Head Island: Our season had an early start, with the first nest in the state reported on May 3rd. We also had a leatherback nest on May 7th. The north end of Hilton Head will be renourished beginning September 15th. Therefore on July 1, we will relocate nests laid on the north end. ~ Carlos Chacon



Folly Beach Renourishment Update: Last year during our nesting season, Folly Beach was completely renourished. Although we

have had partial renourishment projects in the past, this was the first of its kind during a nesting season. Great care was given to find an acceptable donor site, provide for turtle safety on the beach, and relocate nests to suitable habitat. This year, being the first year following the renourishment, we have been presented with some new challenges. The topography of the beach has changed. The east side is being eroded naturally and the correct slope is beginning to return but this process has not happened on the west side of the island. Therefore, when water breaches the escarpment, it flows down in all directions. This makes placing nests in areas which will be kept dry, difficult.



Leatherback that nested on Hilton Head.
Photography by Carlos Chacon.

Finally, sand compaction is inconsistent. We find some areas are too dense for relocation. This area seems to have not been tilled. Conversely, in some areas, the sand is so soft that it feels as though it has been dug by a turtle. This makes probing very hazardous. One cannot differentiate the egg chamber from any other area. We have in several cases opted to mark the area and leave the eggs unconfirmed or resorted to digging with our hands to locate the eggs. So renourishment, while providing needed nesting habitat presents new challenges for nest management. ~ Carole Bennett

Harbor Island: Harbor Island made the front news of the Beaufort Gazette in June when a 300 lb loggerhead was found stuck in a tidal pool. Seven people tried to move the turtle back to the ocean with no luck. However with the help of a tarp, they were able to rescue it back to the ocean. For the full story visit the following web site:
www.beaufortgazette.com/local_news/story/5886123p-5214738c.html.

South Island: This year on the beaches of the Yawkey Wildlife Center, coyotes have been quite troublesome. Joseph Kennedy, our sea turtle intern on Yawkey, has successfully modified his

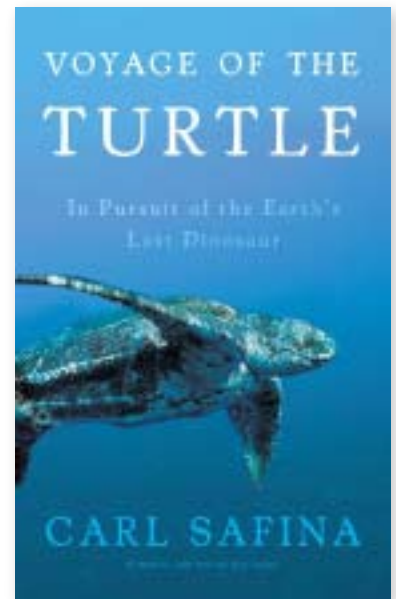
beach patrol to outsmart the coyotes. Joe would normally mark and screen nests each morning, but this year he has had to patrol the beaches at night, all night. The coyotes were depredating the nests immediately after they were laid. So to solve this problem, Joe covers the beach each hour from dusk to dawn screening nests. Thank you Joe!

Notes on Folks

If you saw the article in the Post & Courier on June 20th, you know how proud we are of **Elena Mpougas** of Sullivan's Island, the 11 year old Turtle Team member who won an essay competition for the National Geographic Society's Everyday Explorer Kids Expedition trip to the Galapagos Islands in May. We were all envious of Elena and her mother, Erene, who accompanied her on the trip. Elena has been an active member of our Team along with her parents and brother for several years. Congratulations, Elena! ~ Mary Pringle

Voyage of the Turtle: In Pursuit of the Earth's Last Dinosaur by **Carl Safina** is now available. This compelling turtle's tale takes you all over the globe from Trinidad to Canada along the Atlantic seaboard, and from Costa Rica to California, then west to New Guinea in the Pacific region. One area of focus is actually the coastal waters of South Carolina. Don't miss this exciting publication. 400 pages.

Twenty-sixth Annual Symposium on Sea Turtle Biology and Conservation: The 26th Annual Symposium on Sea Turtle Biology and Conservation was held on April 3-8 on the island of Crete, Greece. Dimitris Margaritoulis of ARCHELON, the Sea Turtle Protection Society of Greece, was this year's president of the International Sea Turtle Society (ISTS) and was responsible for organizing the symposium.



About 800 individuals from around the world were in attendance. Nearly 100 oral presentations and invited lectures were given and over 300 posters were presented on various facets of sea turtle biology and conservation efforts. There were 17 attendees from South Carolina. Presenters from South Carolina included **DuBose Griffin, Jennifer Keller, Kristen Mazzarella** and **Jeffrey Schwenter**. Kristen won Best Student Conservation Poster for her poster: Analysis of Stranded Loggerhead Sea Turtles (*Caretta caretta*) in North and South Carolina Using Mitochondrial DNA and Stranding Records. Congratulations to Kristen for this well deserved accomplishment.

Next year's symposium (February 23 - 28, 2007) will be in Myrtle Beach, South Carolina, with **Michael Coyne** of Duke University and creator of seaturtle.org as the President of the International Sea Turtle Society (ISTS). We hope that many of you will participate in this upcoming symposium. Please visit: www.seaturtle.org/mtn/archives/mtn113/mtn113p18.shtml for specific details.

seaturtle.org

DuBose Griffin has been selected to replace Sally Murphy as the South Carolina Sea Turtle Program Coordinator for the Wildlife and Freshwater Fisheries Division of SCDNR. DuBose has worked with the sea turtle conservation program for just over six years and brings significant experience to this position. She will lead several SCDNR employees and over 500 volunteers who are criti-

cal to the success of the sea turtle program. SCDNR and the citizens of SC are indebted to the continued commitment of the volunteers who have worked for sea turtle conservation for over 25 years.

Conservation and management of the federally threatened loggerhead turtle that nests along South Carolina beaches will continue to be a department priority. The SCDNR will also continue conservation of other sea turtle species that nest and strand on our beaches or migrate through our coastal waters. Collaboration with the Marine Resources Division; local, state, and federal agencies; universities and colleges and the international sea turtle community will remain an important component of this work. ~ Derrell Shipes

Did You Know?

Sargassum is a genus of generally planktonic macroalgae in the order Fucales. The plants, which may grow to a length of several metres, are generally brown or dark green in colour and are differentiated into holdfast, stipes, fronds and fruiting bodies. Some species have berrylike gas-filled bladders to keep the plants afloat, thus promoting photosynthesis. Many plants have rough sticky textures, which together with robust but flexible bodies, help to withstand strong currents. The thick masses of Sargassum provide an environment for a distinctive and specialised group of marine forms, including sea turtle hatchlings and juveniles. They swim directly offshore after hatching and eventually associate with the sargassum and pelagic drift lines of convergent zones.



Sargassum is commonly found in the beach drift near sargassum beds where they are also known as Gulfweed, and colloquially as the weed of deceit, a term also used to include all seaweed species washed up on shore. Sargassum species are found throughout tropical areas of the world and are often the most obvious macrophyte in near-shore areas where sargassum beds often occur near coral reefs. The plants grow subtidally and attach to coral, rocks or shells in moderately exposed or sheltered rocky or pebble areas. Off the US coast, south of Bermuda, is the Sargasso Sea, a large (two-thirds the size of the US) loosely defined portion of the Atlantic Ocean where an estimated



seven million tons of live Sargassum may be found. The Florida Keys and its smaller islands are well known for their high levels of sargassum covering their shores. Gulfweed was observed by Columbus. Although it was formerly thought to cover the whole Sargasso Sea, making navigation impossible, it has since been found to occur only in drifts. There is much concern about its impact on the coastal environment. It has become a great nuisance forming large detached mats, clogging marinas, recreational areas and other sports facilities. It can foul fishing lines, clog pipes of boats and trap debris. The species is particularly tenacious with fast growth rates, high reproductive rates and an ability to spread vegetatively.

Retrieved from "<http://en.wikipedia.org/wiki/Sargassum>"

ANNOUNCEMENTS FROM THE SEA TURTLE OFFICE

Upcoming Events

October 15, 2006: Symposium Preregistration Deadline - Register with www.seaturtle.org

October 21, 2006: SCDNR Open House, Fort Johnson - Charleston, SC

February 23-28, 2007: 27th Annual International Sea Turtle Symposium - Myrtle Beach, SC

New South Carolina CTurtle List Serve

We have decided to try out a new list serve for the SC sea turtle community to enhance communication and collaboration among our volunteers, staff, academia and organizations. If you would like to join this list serve, please send an email to coastbio@dnr.sc.gov.

Loggerheadlines Has a New Look

Thanks for reading this issue of Loggerheadlines. We have a new format and would appreciate any feedback. Over time this new format will improve with your help! We have also decided to scale down Loggerheadlines to a semi-annual newsletter. Thank you again for your support.

Loggerheadlines Available Online

Loggerheadlines can be read online at www.dnr.sc.gov/seaturtle/. Please let us know if you would like to use this resource and prefer not to get a hard copy in the mail. We're always looking for ways to save paper and trees!

SCDNR Marine Turtle Conservation Program
PO Box 12559
217 Fort Johnson Road
Charleston, SC 29422
Voice: (843) 953 - 9015
Fax: (843) 953 - 9353
Email: coastbio@dnr.sc.gov
Web Page: www.dnr.sc.gov/seaturtle/



SCDNR Needs Your Support! Citizens of South Carolina can support DNR through the purchase of the endangered species license plate and Check Off for Wildlife. The Endangered Wildlife Fund is the foundation of support for threatened and endangered wildlife in South Carolina. Look for line 26 on the long form (SC1040) or line 13 on the short form (SC1040A) of the South Carolina Department of Revenue Individual Tax Return form, then complete and submit Form I-330. Help us keep wildlife in your life!

